1. Image encoding method comprising the following steps:

- the definition of a hierarchical meshing having at least two nested meshing levels formed by mesh units defined by peaks (which may be pixels of said image to be encoded)

- the determining, for each of said mesh units, of a piece of error information between said image to be encoded and an interpolated image obtained from the peaks of the mesh units belonging to the meshing level of the mesh units considered;

- putting a stop (33) to the refining of the mesh units having a piece of error information below a predetermined first threshold;

- the implementation of a specific encoding (35) for the mesh units having a piece of error information above a second predetermined threshold;

- the continuation (34) of the refining of the mesh units having a piece of error information above said first predetermined threshold and below said second predetermined threshold.

2. Encoding method according to claim 1, characterized in that said specific encoding implements at least one reversible transformation (72, 74).

3. (Amended) Encoding method according to claim 1, characterized in that said mesh units are triangles (81).

4. (Amended) Encoding method according to claim 2, characterised in that said specific encoding comprises the following steps:

- the association, with each of said triangles (81) to be encoded, of a square matrix (84) representing said triangles to be encoded, by means of a first reversible transformation (72);

- the application of a second reversible decorrelation transformation (74) to each of said square matrices (84) delivering transformed matrices.

5. Encoding method according to claim 4, characterized in that said step of associating a square matrix comprises the following steps:

- the affine transformation (82) of a source triangle (81) into an isosceles rectangular triangle (83) called a reference triangle;

- the creation (86) of a square matrix (84) whose lower part includes data representing said isosceles rectangular triangle;

6. (Amended) Encoding method according to claim 25, characterized in that said second transformation (74) belongs to the group comprising:

- the Karhunen Loeve transformation (KLT),
- the discrete Fourier transformation (DFT),
- the discrete cosine transformation (DCT),
- and the Walsh Hadamard transformation (WHT).

7. (Amended) Encoding method according to claim 16, characterized in that said specific encoding comprises a step of quantification (75) and of encoding the data of the lower part of said transformed matrix.

8. (Amended) Encoding method according to claim 17, wherein at least at least one of the following parameters can be modified:

- said first threshold;
- said second threshold;
- the structure of said nested meshing;

- a scaling factor α enabling an expansion or compression of said square matrix in the space domain;
- the type of qualification;
- the quantification pitch.

9. (Amended) Encoding method according to claim 1, characterized in that said piece of error information corresponds to a difference in luminance, representing a squared error or an absolute error between a source triangle and the corresponding approximate angle.

10. (Amended) Encoding method according to claim 1, characterized in that, for each mesh unit, the following choice is made:

- if said piece of error information is below said first threshold, the hierarchical division for the mesh unit considered is interrupted (132);
- if said piece of error information is above said first threshold, but below said second threshold, the application of said hierarchical division (134) is continued;
- if said difference in luminance is above said second threshold, said specific encoding (135) is implemented.

11. (Amended) Encoding method according to claim 10, characterized in that, for all meshing levels other than the first level, the data taken into account for the encoding are quantified differential values, each corresponding to the quantified difference between an optimized value for the hierarchical level considered of

the image to be encoded and a value interpolated from the meshing of the lower hierarchical level.

12. (Amended) Encoding method according to claim 1, comprising a step for optimizing the position of the peaks of each of said meshings, minimizing a predetermined error criterion.

13. (Amended) Encoding method according to claim 1, comprising a step for defining a quaternary subdivision tree used to identify the mesh units using said specific encoding and the mesh units whose contents are interpolated from the values at the nodes defining said mesh units.

14. (Amended) Encoding method according to claim 1, comprising a step for matching said mesh units with the contents of the image, implementing inversions of diagonals of the quadrilaterals formed by all the pairs of adjacent triangles.

15. A method for the decoding of an image encoded according to an encoding method comprising the following steps:

- the definition of a hierarchical meshing having at least two nested meshing levels formed by mesh units defined by peaks;
- the determining, for each of said mesh units, of a piece of error information between said image to be encoded and an interpolated image obtained from the peaks of the mesh units belonging to the meshing level of the mesh units considered;
- putting a stop to the refining of the mesh units having a piece of error information below a predetermined first threshold;
- the implementation of a specific encoding for the mesh units having a piece of error information above a second predetermined threshold;
- the continuation of the refining of the mesh units having a piece of error information above said first predetermined threshold and below said second predetermined threshold;

characterized in that it comprises the following steps:

- the preliminary decoding of said data encoded according to said encoding, implementing a hierarchical meshing, enabling the description of an initial representation;
- the complementary decoding of said data encoded by means of said specific encoding, enabling the refining of said initial representation.

16. Decoding method according to claim 15, characterized in that said complementary decoding step is optional.

17. (Amended) Decoding method according to claim 15, characterized in that said specific encoding comprises the following steps:

- the association, with each of said source triangles to be processed, of a square matrix representing said source triangle, by means of a first reversible transformation;

- the application of a second reversible decorrelation transformation to each of said square matrices delivering transformed matrices,

characterized in that said complementary decoding advantageously comprises the following steps of reconstruction:

a) the application of an inverse transformation to said second reversible transformation on said transformed matrices, delivering said reconstructed square matrices;

b) the association, with each of said reconstructed square matrices, of a corresponding reconstructed triangle by means of an inverse affine transformation of said first reversible transformation;

c) the reconstruction of said minimum partition from said reconstructed triangle.

18. Decoding method according to claim 17, characterized in that said square matrices are recreated from data of a received bit stream, whose decoded data are the coefficients of the triangle to be reconstructed, which form the lower part of said matrix.

19. (Amended) Decoding method according to claim 15, characterized in that said preliminary decoding provides for the reading, in the bit stream, of at least one of the pieces of information belonging to the group comprising:

- the number of levels of the hierarchy;
- the identification of the encoding technique used for each of the triangles;
- the succession of the differential values of the components associated with the nodes of the hierarchical meshing;
- the identification of the area on which a diagonal inversion is made.